

In the Claims

Applicant has submitted a new complete claim set indicating marked up claims with insertions and deletions indicated by underlining and strikeouts, respectively.

Listing of the Claims

1. (Currently Amended) A perforator for selectively perforating sheets of paper of a group of sheets, wherein sheets to be perforated are selected as the group is moving successively through the perforator, the perforation being along a direction of the movement, the perforator comprising:

a first perforating tool past which one or more sheets of paper move successively, the first perforating tool having a perforating position to perforate paper passing the perforating tool, and having a neutral position to refrain from perforating paper passing the perforating tool, and having an input for receiving a first control signal; and

an electronic control apparatus having an input to receive a second control signal as the group of sheets moves through the perforator, and an output connected to the input of the first perforating tool, wherein, for each sheet of paper that passes the first perforating tool, the second control signal is based on information specific to the sheet,

wherein, the electronic control apparatus is configured such that, for each sheet of paper that passes the first perforating tool, if perforation is desired for the sheet based on the second control signal, the electronic control apparatus emits at the first control signal from the output of the electronic control apparatus to the input of the first perforating tool to place the first perforating tool in the perforating position, and if perforation is not desired for the sheet based on the second control signal, the electronic control apparatus does not emit at the first control signal to the first perforating tool.

2. (Original) A perforator as claimed in claim 1, wherein the electronic control apparatus is operative, for each sheet of paper that passes the first perforating device, to set a distance of the first perforating tool from the sheet such that, in the perforating position, the first perforating tool touches the sheet, and in the neutral position, the first perforating tool is kept apart from the sheet.

3. (Withdrawn) A perforator as claimed in claim 1, wherein the first perforating tool is movable relative to the paper.
4. (Withdrawn) A perforator as claimed in any of claims 1 to 3, in which a position of the first perforating tool (3) is variable in the traverse direction.
5. (Withdrawn) A perforator as claimed in any of claims 1 to 3, further comprising:
at least a second perforating tool.
6. (Withdrawn) A perforator as claimed in any of claims 1 to 3, wherein the first perforating tool is a rotating disc having a perforating edge.
7. (Withdrawn) A perforator as claimed in claim 6, further comprising:
an opposing roll that is situated in an opposed position to the first perforating tool.
8. (Withdrawn) A perforator as claimed in claim 7, wherein the opposing roll has a flat surface.
9. (Withdrawn) A perforator as claimed in any of the claims 1 to 3, wherein the first perforator receives each sheet after a printing of the sheet.
10. (Withdrawn) A perforator as claimed in any of the claims 1 to 3, wherein the perforator is connected to a printer.
11. (Previously Presented) A method of selectively perforating sheets of paper of a group of sheets, wherein sheets to be perforated are selected as the group is moving successively through a perforation device, the perforation being along a direction of the movement, the perforation device including a perforating tool having a perforating position in which a sheet of paper is perforated and a neutral position in which a sheet of paper is not perforated, the device further including a control unit to control the perforating tool, the method comprising acts of:

successively receiving the moving sheets at the perforating device;
as the group of sheets moves through the perforation device, for each received sheet, receiving at the control unit a first control signal based on information specific to the received sheet;
sending a second control signal from the control unit to the perforating tool to set the perforating tool into the perforating position if, based on the first control signal, a received sheet to be perforated enters the perforating device; and
perforating the received sheet along the direction of movement in accordance with the second control signal to produce a perforated sheet.

12. (Withdrawn) A method according to claim 11, wherein the act of receiving the first control signal includes:

receiving the first control signal from a printer output data.

13. (Withdrawn) A method according to claim 11, further comprising an act of:
transferring the sheets to a mailing machine after the act of perforating.

14. (Previously Presented) A method of selectively perforating sheets of paper of a group of sheets, wherein sheets to be perforated are selected as the group is moving successively through a perforating device, the perforating device including a first perforating tool for perforating sheets of paper and a control unit for controlling the perforating tool, wherein the first perforating tool perforates the paper along a direction of the movement of the sheets, the method comprising acts of:

successively receiving a plurality of sheets of paper as input to the perforating device;
and

positioning the first perforating tool in either a perforating position to perforate paper or a neutral position to allow paper to pass imperforated, including:

as the group of sheets moves through the perforation device, for at least a first sheet, receiving at the control unit a first control signal based on information specific to the first sheet;

sending, based on the first control signal, a second control signal from the control unit to the first perforating tool; and

in response to receiving the second control signal from the control unit, actuating the first perforating tool to assume the perforating position while the first sheet passes.

15. (Previously Presented) The method of claim 14, wherein the act of positioning includes: maintaining the first perforating tool in the neutral position if no second control signal is received at the first perforation tool.

16. (Withdrawn) The method of claim 14, wherein the first control signal is received from a data signal output of a printer.

17. (Previously Presented) The method of claim 14, wherein the first control signal is received from a reader that reads codes from the sheets of paper.

18. (Withdrawn) The method of claim 14, wherein the perforation unit includes at least a second perforating tool that selectively perforates the selected sheets of paper such that selected sheets receive at least two perforations.

19. (Withdrawn) The method of claim 14, wherein the perforation unit includes at least a second perforating tool, the method further comprising an act of:
selectively positioning the second perforation tool in the perforating position contemporaneously with positioning the first perforation tool in the perforating position such that one or more selected sheets receive at least two perforations.

20. (Withdrawn) The method according to claim 14, further comprising an act of:
transferring the sheets to a mailing machine after the act of perforating.

21. (Withdrawn) The method of claim 14, wherein the act of receiving the first control signal includes:
receiving the first control signal from printer output data.

22. (Previously Presented) The method of claim 14, wherein the act of receiving the first control signal includes:

reading a code in the sheets with a reader.

23. (Previously Presented) The method of claim 11, wherein, for each received sheet, the act of receiving the first control signal includes:

reading a code on the sheet with a reader.

24. (Withdrawn) The perforator of claim 1, wherein the control apparatus is operative to set the first perforating tool in the perforating position for different durations such that perforations of different lengths are produced for two or more of the perforated sheets.

25. (Withdrawn) The method of claim 11, wherein:

the first control signal received by the control unit indicates that the perforating tool is to be set into the perforating position for a first duration;

the act of perforating includes perforating the sheet for a first length along the direction of movement in accordance with the first duration indicated by the signal; and

two or more of the perforated sheets have perforations of different lengths.

26. (Withdrawn) The method of claim 14, wherein:

the first control signal indicates that the first perforation tool is to assume the perforating position for a first duration;

the act of actuating includes:

actuating the first perforation tool to assume the perforating position for the first duration; and

returning the first perforation tool to the neutral position after the first duration has elapsed to produce a perforation of a desired length; and

the desired length of the perforation is different for two or more of the perforated sheets.

27. (Previously Presented) A system for selectively perforating sheets of paper of a group of sheets, wherein sheets to be perforated are selected as the group is moving successively through a perforating device, the perforating device including a first perforating tool for perforating paper and a control unit for controlling the perforating tool, wherein the first perforating tool perforates the paper along a direction of the movement of the sheets, the system comprising:

means for successively receiving a plurality of sheets of paper as input to the perforating device; and

means for positioning the first perforating tool in either a perforating position to perforate paper or a neutral position to allow paper to pass unperforated, including:

means for receiving at the control unit as the group of sheets moves through the perforation device, for at least a first sheet, a first control signal based on information specific to the first sheet;

means for sending, based on the first control signal, a second control signal from the control unit to the first perforating tool, to cause the first perforating tool to assume the perforating position; and

means for actuating, in response to receiving the control signal from the control unit, the first perforating tool to assume the perforating position while the first sheet passes.

28. (Original) The system of claim 27, wherein, if no second control signal is received at the first perforation tool, the first perforating tool is maintained in the neutral position.

29. (Withdrawn) The system of claim 27, wherein the first control signal is received from a data signal output of a printer.

30. (Previously Presented) The system of claim 27, wherein the first control signal is received from a reader that reads a code from the at least first sheet of paper.

31. (Withdrawn) The system of claim 27, wherein each sheet has been printed before such sheet passes the perforating tool.

32. (Withdrawn) The system of claim 27, wherein the perforation unit includes at least a second perforating tool that selectively perforates the selected sheets of paper.
33. (Withdrawn) The system of claim 27, wherein:
the first control signal indicates that the first perforation tool is to assume the perforating position for a first duration;
the means for actuating includes means for actuating the first perforation tool to assume the perforating position for the first duration and returning the first perforation tool to the neutral position after the first duration has elapsed to produce a perforation of a desired length; and
the desired length of the perforation is different for two or more of the perforated sheets.
34. (Withdrawn) The perforator of claim 10, wherein the second control signal comprises data output from the printer.
35. (Original) The perforator of claim 1, wherein for each sheet of paper that passes the first perforating device, the second control signal is based on a code on the sheet of paper.
36. (Original) The perforator of claim 35, wherein, the perforator is connected to a reader that, for each sheet of paper that passes the perforating device, reads the code from the sheet of paper.
37. (Original) The method of claim 17, wherein the method further comprises an act of, for at least the first sheet, reading a code from the first sheet on which the first control signal is based.
38. (Original) The system of claim 30, wherein the system includes the reader.